

CLAIMS

What is claimed is:

1. A wing for an airborne mobile platform, comprising:
a first region;
5 a second region; and
a transition region in between said first region and said second region, said transition region forming a smooth, gradually curving surface devoid of a planform break for at least one of a leading edge and a trailing edge of said wing.
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2. The wing of claim 1, wherein said transition region forms a smooth, gradually curving surface devoid of planform breaks at both of said leading edge and said trailing edge of said wing.
- 15 3. The wing of claim 1, wherein said first region is adapted to be coupled to a fuselage of said airborne mobile platform.

4. A wing for an aircraft, comprising:
a first region adapted to be coupled to a fuselage of said aircraft;
a second region forming an outer portion of said wing;
- 5 a transition region disposed in between said first and second regions, said transition region forming a gradually curving surface at least at one of a leading edge and a trailing edge of said wing that is devoid of a planform break.
- 10 5. The wing of claim 4, wherein said transition region forms gradually curving surfaces at both of said leading edge and said trailing edge of said wing, such that both of said leading and trailing edges are devoid of planform breaks.
- 15 6. The wing of claim 4, wherein said transition region is adapted to be coupled to a fuselage of said aircraft.

7. An airfoil for an aerospace vehicle, comprising:
a first region;
a second region; and
a transition region disposed in between said first and second
5 regions, said transition region forming a smooth, gradually curving surface at
least at one of a leading edge and a trailing edge of said airfoil, that is devoid
of a planform break.
8. The airfoil of claim 7, wherein said transition region includes
10 smooth, gradually curving surfaces at both of said leading edge and said
trailing edge of said airfoil.
9. The airfoil of claim 7, wherein said first region is coupled to a
fuselage of said aerospace vehicle.

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10. A method of forming an airfoil for an aerospace vehicle, comprising:

forming a first region of said airfoil that is adapted to be coupled to a fuselage of said vehicle;

5 forming a second region of said airfoil;

forming a transition region in between said first and second regions such that said first region, said second region and said transition region cooperatively form said airfoil, and such that said transition region forms a gradually curving surface at least at one of a leading edge and a
10 trailing edge of said airfoil that is devoid of a planform break.

11. The method of claim 10, further comprising forming said transition region such that both of said leading and trailing edges of said airfoil, at said transition region, form gradually curving surfaces that are devoid of planform
15 breaks.

12. A method of forming a wing for an aircraft, comprising:
forming a first region of said wing;
forming a second region of said wing;
5 forming a transition region in between said first and second
regions such that said first region, said second region and said transition
region cooperatively form said wing, and such that said transition region forms
a gradually curving surface at least at one of a leading edge and a trailing
edge of said airfoil that is devoid of a planform break.
- 10 13. The method of claim 12, wherein said transition region forms a
gradually curving surface at both of said leading and trailing edges of said
transition
- 15 14. The method of claim 13, further comprising securing said skin
panel over said airfoil support structure such that said skin panel extends over
both said leading and trailing edges of said airfoil support structure and forms
a smoothly varying, continuous, aerodynamic surface from said leading edge
to said trailing edge.

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